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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 09/786,352 | 03/13/2001 | Mirosław Z Bober | 204207US2PCT | 8286 |
| 2292 7590 11/20/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 | | | EXAMINER DESIRE, GREGORY M | |
| | | | ART UNIT 2624 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/786,352 | BOBER, MIROSLAW Z | |
| | Examiner | Art Unit | |
| | Gregory M. Desire | 2624 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2007.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-10 and 25-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-10 and 25-36 is/are rejected.
- 7) ☒ Claim(s) 37 and 38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to communication filed 8/7/07.

Response to Amendment

2. Examiner withdraws the 35 USC 101 for claim 36.

Response to Arguments

3. Applicant argues (remarks page 10 lines 13-15) Abbasi fails to at least teach, disclose, or suggest each and every element of independent claim 1. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.
4. Applicant argues (remarks page 10 lines 16-19) Abbasi teaches away from applicant's claimed invention. Specifically, the introduction section Abbasid recites that parameter including area, perimeter, and centroid can not be used as shape features when the objects are subject to variation in scale and orientation. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., parameters being used as shape features) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read

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into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claim recites parameter reflecting shape.

5. Applicant argues (remarks page 11 line 5-7) Examiner incorrectly applied Abbasid by stating that Abbasid discusses deriving eccentricity as a shape feature region base upon using region points and centroid to find eigenvalues, and eigenvalues to calculate eccentricity. It is the position of the examiner, that the application of the prior art is the interpretation of examiner. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1 and 10 recite the limitation " the original object outline" in line 6 in claim 1 and line 7 in claim 10. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-3, 6-10 and 25-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abbasi et al "Reliable Classification of Chrysanthemum Leaves through Curvature Scale Space".

Regarding method and apparatus claims 1, 10, 33 and 36 Abbasi discloses,

Deriving a curvature scale space representation of the object outline by smoothing the object outline (note page 287 paragraph 4 lines 2-12, curvature space representation derived by Gaussian smoothing),

Deriving at least one additional parameter reflecting the shape or mass distribution (note paragraph 5 global parameters page 290- 291 lines 1-10, shows how eccentricity is derived which is a parameter reflecting shape).

Associating the CSS representation and the additional parameter as shape of the object (note page 291 lines 6-10, eccentricity is based on eigenvalues which depends on shape and page 289 lines 1-13, associates the zero crossing of css representation as points that are shape descriptors);

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Wherein the at least one additional parameter corresponds to the eccentricity of the outline (note page 290-291 paragraph 5 lines 1-15 lines describes additional parameter as eccentricity which is shape dependent).

Abbasi paragraph 4 and 5 does not clearly disclose the associating a smooth version of original curve with eccentricity. Abbasi discloses associating a smooth version or original curve with eccentricity (note paragraph 6, classifying based CSS matching, choosing global parameters which include eccentricity that are similar and applying css matching). Abbasi paragraphs 4, 5 and 6 are combinable because they are from same article of Curvature Space Scales. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to associate CSS with eccentricity in the system of Abbasi as evidenced by Abbasi. The suggestion/motivation for doing so would have been classifying images (note paragraph 6). Therefore, it would have been obvious to combine Abbasi with Abbasi to obtain the claimed invention.

Regarding method claim 2 Abbasi discloses,

Wherein an additional parameter relates to the smoothed outline corresponding to a peak in the CSS image (note page 291 lines 16-19, aspect ratio describes an additional parameter corresponds to height (peak)).

Regarding method claim 3 Abbasi discloses,

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Wherein an additional parameter relates to the smoothed outline corresponding to the highest peak in the CSS image (note page 291 lines 16-19, aspect ratio describes maximum height, thus highest peak).

Regarding method claim 6 Abbasi discloses,

Wherein at least one additional parameter uses a region-based representation (note page 290, paragraph 5 lines 3-4, eccentricity is region based parameter).

Regarding method claims 7 and 9 Abbasi discloses,

Wherein an additional parameter is a region moment invariant (note page 290, paragraph 5 lines 4-7 eccentricity defines region moment).

Regarding method claim 8 Abbasi discloses,

Wherein an additional parameter is based on Fourier descriptor (note page 290, paragraph 4.3, shape descriptor is well known Fourier descriptor).

Regarding apparatus claim 25 Abbasi discloses,

Deriving a representation of an object in an image comprising a control device and storage area (note page 285 lines 10-13, computer system contains storage area and control device).

Regarding apparatus and method claims 26 Abbasi discloses,

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Wherein the storage area is an image database (note page 289, paragraph 4.2 lines 1-2, shape stored in a database)

Regarding apparatus claim 27 Abbasi discloses,

A display (note page 285 lines 10-13, computer system contains storage area, control device and display).

Regarding method claims 28, 31-32 and 34-35 Abbasi discloses,

Determining curvature scale space representation for an object outline to generate a plurality of curve representative of said outline (note section 4 page 288 last paragraph and fig. 3 shows curve scale space representation of contour); and

Determining characteristics associated with said outline including peaks and associated peak coordinates for said plurality of curves to generate a shape descriptor for said outline (note page 289 lines 1-13, examiner interprets maximum as peaks and their points as peak coordinates, which are described as shape descriptors). Section 4 does not clearly disclose determining characteristic associated with said outlined including eccentricity. Section 5 discloses determining characteristic associated with outlines including eccentricity (page 290, section 5 line 1-page 291 line 6, shows formula for eccentricity and describes as being used a shape feature, which is region based, how region points are scattered around centroid). Section 4 and 5 are combinable because they are from the same article. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include eccentricity

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characteristic in an outline. The suggestion/motivation for doing so would have been important characterizing shape features of an outline, since eccentricity solely depend on the on shape. Therefore, it would have been obvious to combine section 4 and section 5 of Abbasi to obtain the invention as specified in claim 28.

Regarding apparatus and method claim 29, 31 and 34-35 Abbasi discloses,

Wherein the storage area is an image database (note page 289, paragraph 4.2 lines 1-2, shape stored in a database)

Regarding method claim 30 Abbasi discloses,

Wherein said determining a curvature scale space representation includes determining zero crossing points for an initial set of curves generated to produce said plurality of curves representative of said outline (note page 287-289 paragraph 4 describes zero crossing).

Allowable Subject Matter

9. Claims 37-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

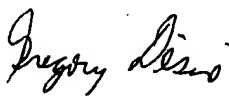
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory M. Desire whose telephone number is (571) 272-7449. The examiner can normally be reached on M-F (6:30-3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

G.D.
November 13, 2007


GREGORY DESIRE
REGISTERED EXAMINER